

FIG. 1

MegaWizard Plug-In Manager - altunvm [page 3 of 6]

my_unvm

altunvm_spi

si sck ncs

so

260

210

What is the interface protocol?

☐ None

☐ Altera proprietary 3-wire

☐ Parallel

☐ Atmel 3-wire compatible

☐ I²C (Internal Usage)

☒ Synchronous Serial Peripheral Interface (SPI)

210

Which type of UNVM is intended to be used?

☐ 2048-bit version

☒ 4096-bit version

230

What is the memory configuration for the interface protocol?

☐ 1 Kbits: 64 x 16

☐ 2 Kbits: 128 x 16

☐ 4 Kbits: 256 x 16

☐ 1 Kbits: 128 x 8

☒ 2 Kbits: 256 x 8

240

What is the mode for UNVM?

☒ Read / Write

☐ Read / Write

250

What is the size of Page Write?

☐ 8 bytes

☐ 16 bytes

☒ 32 bytes

270

Cancel

270

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270

Finish

FIG. 2

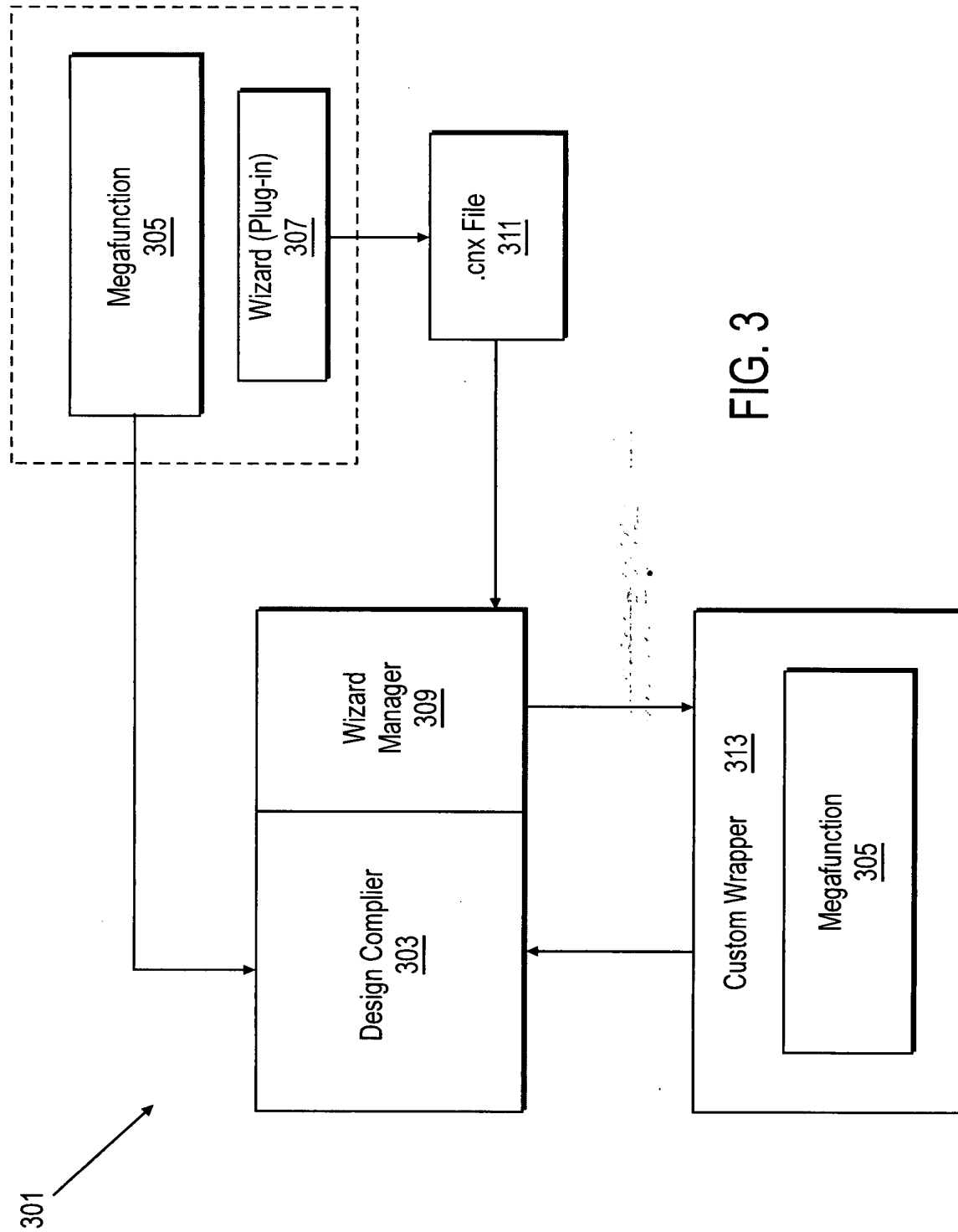


FIG. 3

MegaWizard Plug-In Manager - altunvm [page 3 of 6]

X

What is the interface protocol? _____

☒ None
☐ Altera proprietary 3-wire

☐ Parallel
☐ Atmel 3-wire compatible

☐ I²C (Internal Usage)
☐ Synchronous Serial Peripheral Interface (SPI)

Which type of UNVM is intended to be used? _____

☐ 2048-bit version
☐ 4096-bit version

What is the memory configuration for the interface protocol? _____

☐ 1 Kbits: 64 x 16
☐ 2 Kbits: 128 x 16
☐ 4 Kbits: 256 x 16

☐ 1 Kbits: 128 x 8
☐ 2 Kbits: 256 x 8

What is the mode for UNVM? _____

☐ Read / Write
☐ Read / Write

What is the size of Page Write? _____

☐ 8 bytes
☐ 16 bytes
☐ 32 bytes

Cancel

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Finish

FIG. 4

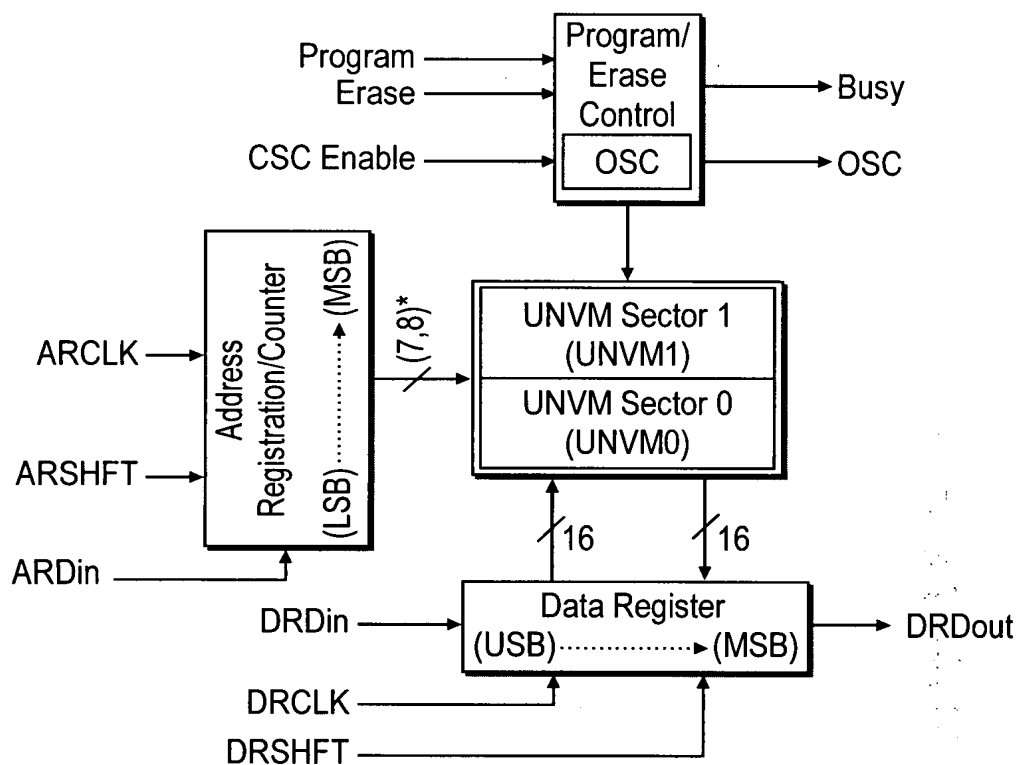


FIG. 5

MegaWizard Plug-In Manager - altunvm [page 4 of 6]

my_unvm

unvm_wysiwyg

program
erase
oscena
arclk
arshft
ardn
drclk
drshft
drdn

busy
osc
drdout

610

Do you want to specify the initial content of the memory?

☒ No, leave it blank

☐ Yes, use this file for the memory content data
(You can use a Hexadecimal (Intel-Format) File [.hex] or a Memory Initialization File [.mif].)

File name: Browse...

620

What is the address value for I²C Interface?

Device Address: 1 0 1 0

Cancel

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Finish

FIG. 6

REPLACEMENT SHEET
Title: "A User Non-Volatile Memory Interface Megafunction"
Inventors: Marcel A. LeBlanc, et al.; Sheet 7 of 15
Application No. 10/796,699

Inventors: Marcel A. LeBlanc, et al.; Sheet 7 of 15

MegaWizard Plug-In Manager - altunvnm [page 3 of 6]

720

altunvnm_parallel

add[7..0]

di[7..0]

nread

nwrite

nerase

do[7..0]

nbusy

data_valid

my_unvnm

What is the interface protocol?

None

☒ Parallel

2C (Internal Usage)

Synchronous Serial Peripheral Interface (SPI)

Which type of UNVM is intended to be used?

2048-bit version

☒ 4096-bit version

What is the memory configuration for the interface protocol?

☒ 1 Kbits: 64 x 16

☐ 2 Kbits: 128 x 16

☐ 4 Kbits: 256 x 16

☐ 1 Kbits: 128 x 8

☐ 2 Kbits: 256 x 8

What is the mode for UNVM?

☒ Read / Write

☐ Read / Write

What is the size of Page Write?

☐ 8 bytes

☐ 16 bytes

☐ 32 bytes

Cancel

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Finish

FIG. 7

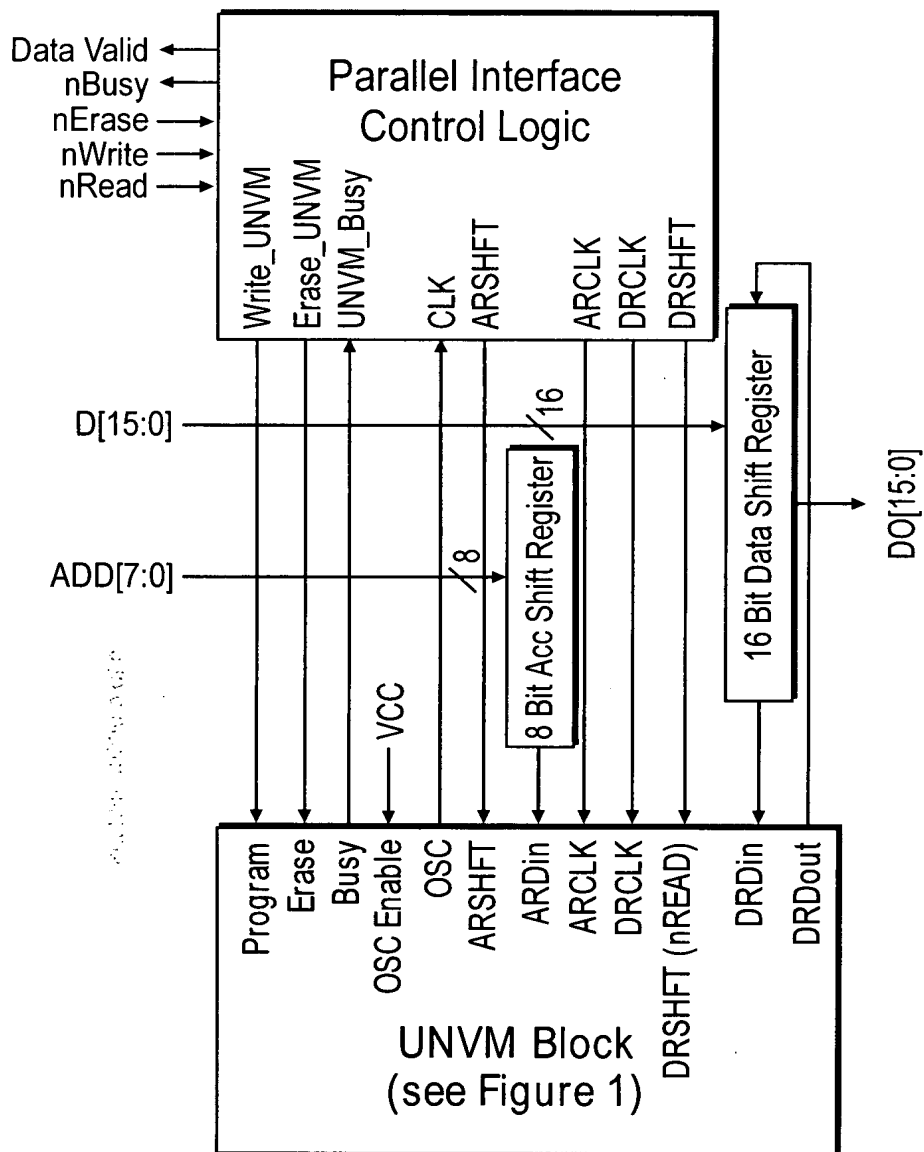


FIG. 8

MegaWizard Plug-In Manager - altunvm [page 5 of 6]

my_unvm

altunvm_parallel

add[7..0] do[7..0] nbusy data_valid

di[7..0] nread nwrite nerase

What is the name of the file containing the memory initialization data?

(You can use a Hexadecimal (Intel-Format) File [.hex] or a Memory Initialization File [.mif].)

Browse...

File name:

What is the value for I²C Interface?

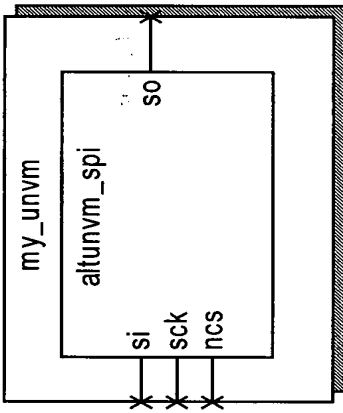
Device Address: 1 0 1 0 0 0 0

Cancel < Back Next > Finish

910

FIG. 9

MegaWizard Plug-In Manager - altunvm [page 3 of 6]



What is the interface protocol?

☐ None ☐ Altera proprietary 3-wire
☐ Parallel ☐ Atmel 3-wire compatible
☐ I²C (Internal Usage)
☒ Synchronous Serial Peripheral Interface (SPI)

Which type of UNVM is intended to be used?

☐ 2048-bit version ☒ 4096-bit version

What is the memory configuration for the interface protocol?

☐ 1 Kbits: 64 x 16 ☐ 2 Kbits: 128 x 16 ☐ 4 Kbits: 256 x 16
☐ 1 Kbits: 128 x 8 ☒ 2 Kbits: 256 x 8

What is the mode for UNVM?

☒ Read / Write ☐ Read / Write

What is the size of Page Write?

☐ 8 bytes ☐ 16 bytes ☒ 32 bytes

Cancel

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Finish

FIG. 10

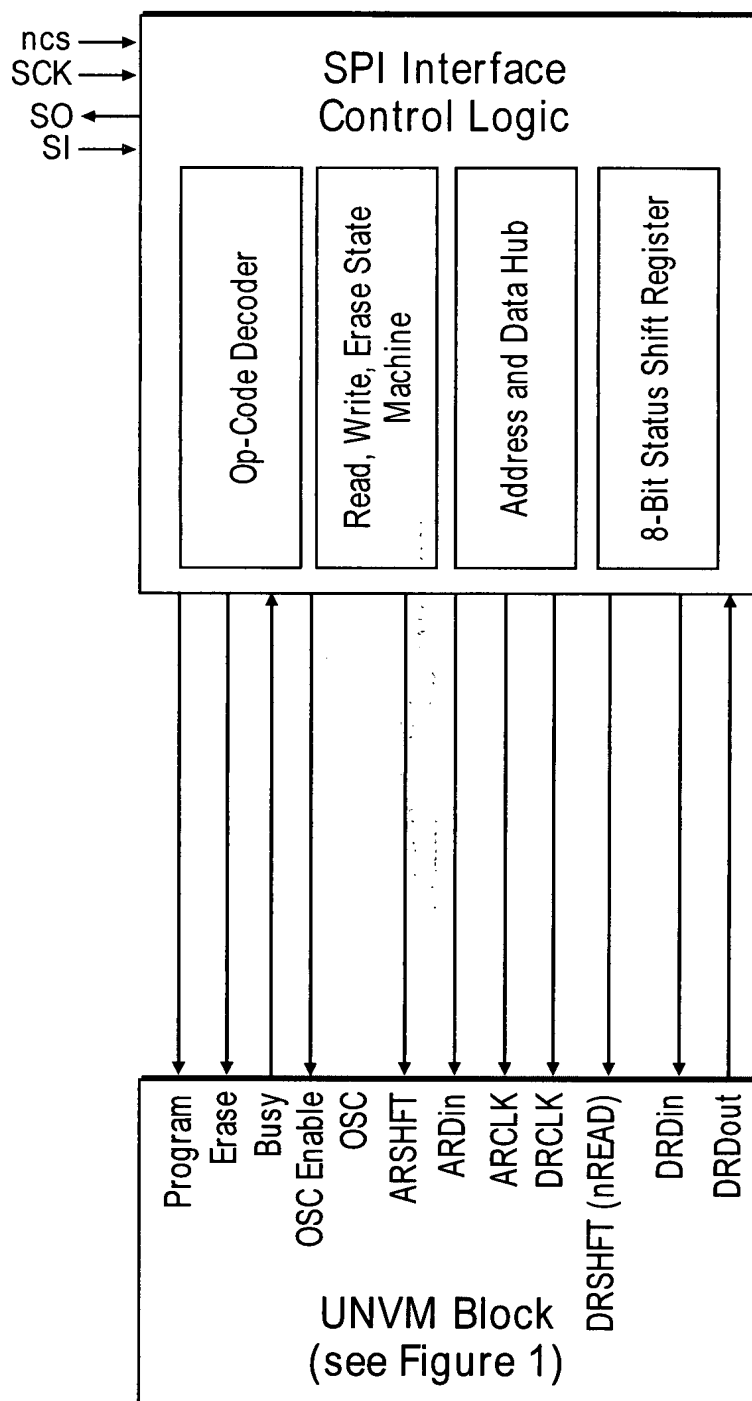
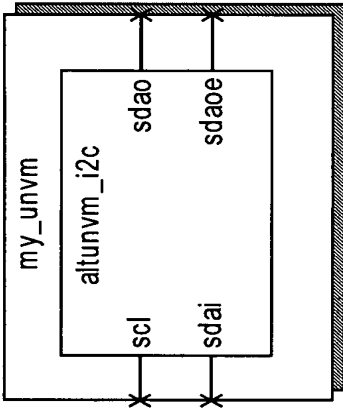


FIG. 11

MegaWizard Plug-In Manager - altunvm [page 3 of 6]



What is the interface protocol?

☐ None
☐ Altera proprietary 3-wire
☐ Parallel
☒ I²C (Internal Usage)
☐ Synchronous Serial Peripheral Interface (SPI)

Which type of UNVM is intended to be used?

☒ 2048-bit version
☐ 4096-bit version

What is the memory configuration for the interface protocol?

☐ 1 Kbits: 64 x 16
☐ 2 Kbits: 128 x 16
☒ 1 Kbits: 128 x 8
☐ 2 Kbits: 256 x 8

What is the mode for UNVM?

☒ Read / Write
☐ Read / Write

What is the size of Page Write?

☐ 8 bytes
☐ 16 bytes
☐ 32 bytes

FIG. 12

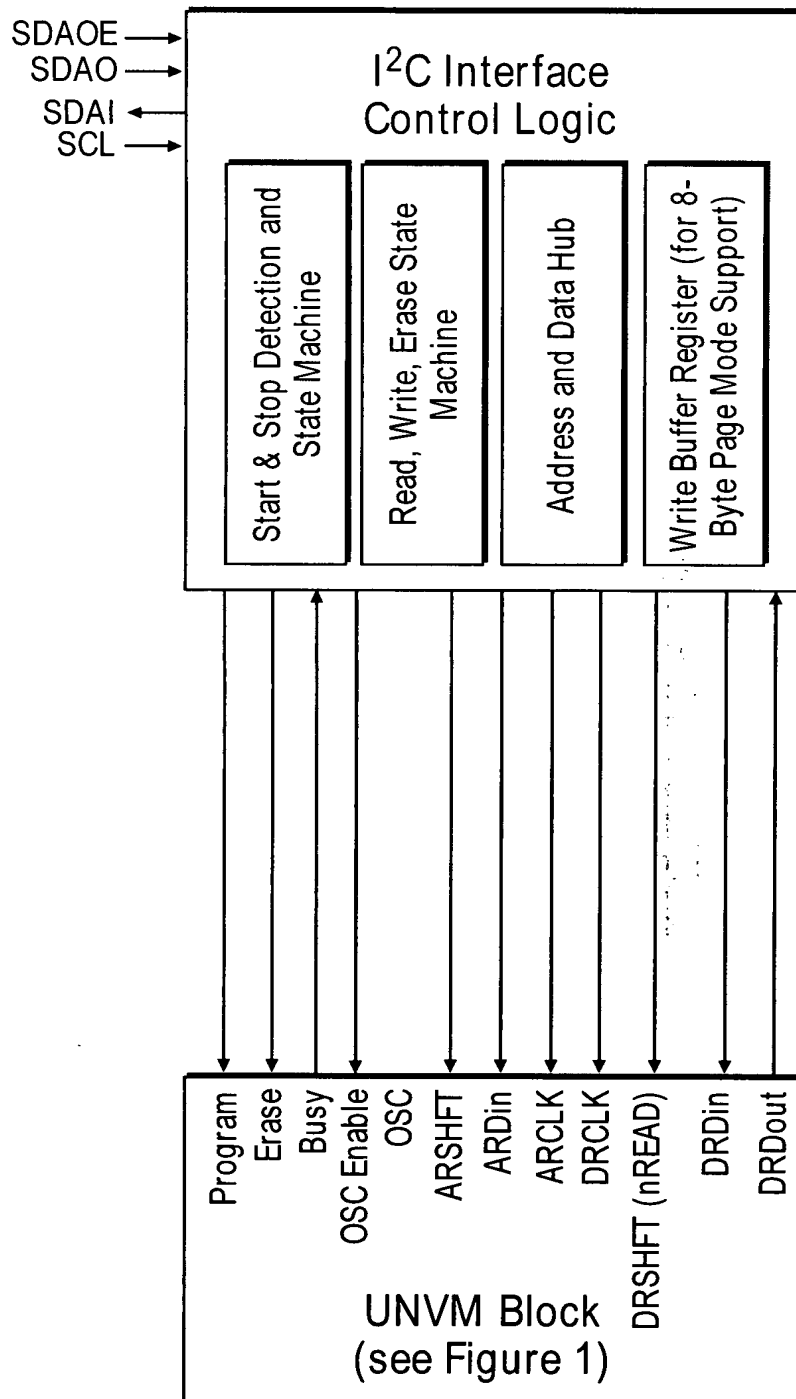
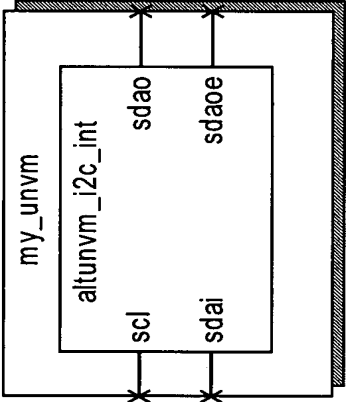


FIG. 13

MegaWizard Plug-In Manager - altunvm [page 4 of 6]



my_unvm

altunvm_i2c_int

scl sda sdai sdao

Do you want to specify the initial content of the memory?

☒ No, leave it blank

☐ Yes, use this file for the memory content data
(You can use a Hexadecimal (Intel-Format) File [.hex] or a Memory Initialization File [.mif].)

File name: Browse...

What is the address value for I²C Interface?

Device Address: 1 0 1 0 0 1 0 0

Cancel < Back Next > Finish

1401

FIG. 14

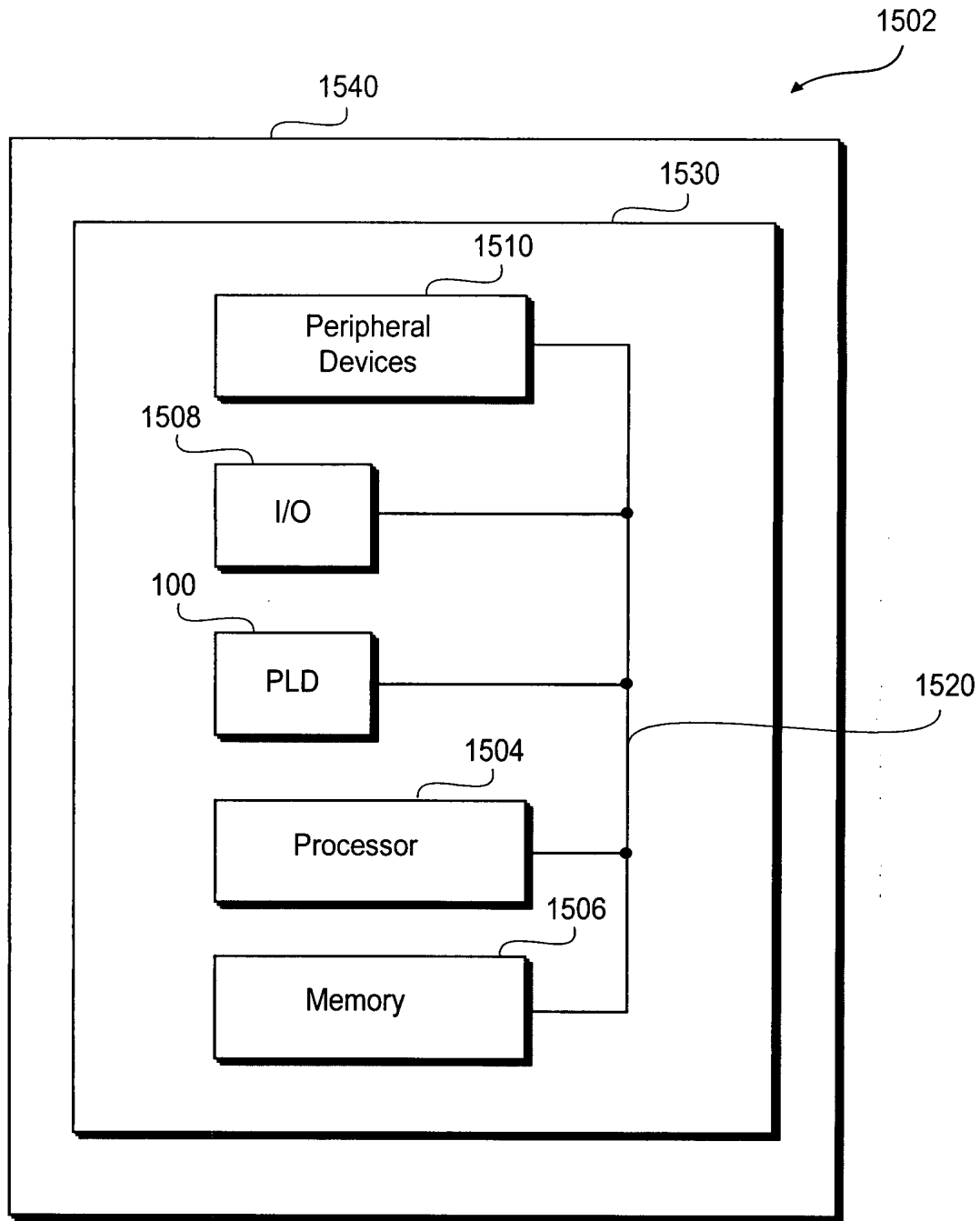


FIG. 15